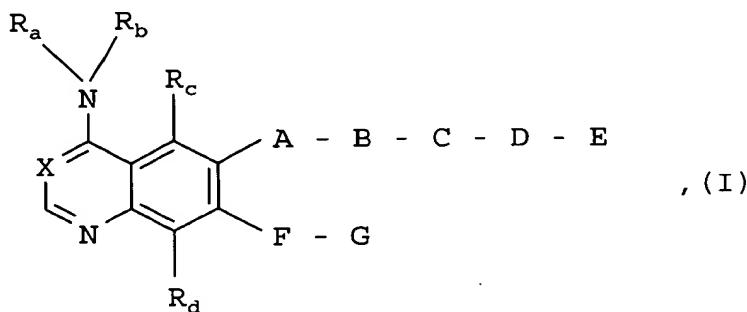


Amendments to the Claims

Please amend the claims as shown below.

Claims 1-4 (cancelled)

Claim 5 (previously presented): A compound of the formula



wherein

R_a denotes a hydrogen atom or a C_{1-4} -alkyl group,

R_b denotes a phenyl, benzyl or 1-phenylethyl group wherein the phenyl nucleus is substituted in each case by the groups R_1 to R_3 , whilst

R_1 and R_2 , which may be identical or different, in each case denote a hydrogen, fluorine, chlorine, bromine or iodine atom,

a C₁₋₄-alkyl, hydroxy, C₁₋₄-alkoxy, C₃₋₆-cycloalkyl, C₄₋₆-cycloalkoxy, C₂₋₅-alkenyl or C₂₋₅-alkynyl group,

an aryl, aryloxy, arylmethyl or arylmethoxy group,

a C₃₋₅-alkenyloxy or C₃₋₅-alkynyoxy group, wherein the unsaturated moiety may not be linked to the oxygen atom,

a C₁₋₄-alkylsulphenyl, C₁₋₄-alkylsulphanyl, C₁₋₄-alkylsulphonyl, C₁₋₄-alkylsulphonyloxy,
trifluoromethylsulphenyl, trifluoromethylsulphanyl or trifluoromethylsulphonyl group,

a methyl or methoxy group substituted by 1 to 3 fluorine atoms,

an ethyl or ethoxy group substituted by 1 to 5 fluorine atoms,

a cyano or nitro group or an amino group optionally substituted by one or two
C₁₋₄-alkyl groups, wherein the substituents may be identical or different, or

R₁ together with R₂, if they are bound to adjacent carbon atoms, denote a -
CH=CH-CH=CH, -CH=CH-NH or -CH=N-NH group and

C1

R₃ denotes a hydrogen, fluorine, chlorine or bromine atom,

a C₁₋₄-alkyl, trifluoromethyl or C₁₋₄-alkoxy group,

R_c and R_d, which may be identical or different, in each case denote a hydrogen, fluorine or
chlorine atom, a methoxy group, or a methyl group optionally substituted by a methoxy,
dimethylamino, diethylamino, pyrrolidino, piperidino or morpholino group,

X denotes a methine group substituted by a cyano group or a nitrogen atom,

A denotes an oxygen atom or an -NH- group optionally substituted by a C₁₋₄-alkyl group,

B denotes a carbonyl or sulphonyl group,

C denotes a 1,3-allenylene, 1,1 or 1,2-vinylene group which may be substituted in each case
by one or two methyl groups or by a trifluoromethyl group,

an ethynylene group or

a 1,3-butadien-1,4-ylene group optionally substituted by 1 to 4 methyl groups or by a
trifluoromethyl group,

D denotes an alkylene, -CO-alkylene or -SO₂-alkylene group wherein the alkylene moiety in each case contains 1 to 8 carbon atoms and additionally 1 to 4 hydrogen atoms in the alkylene moiety may be replaced by fluorine atoms, whilst the linking of the -CO-alkylene and -SO₂-alkylene group to the adjacent group C in each case must take place via the carbonyl or sulphonyl group,

a -CO-O-alkylene, -CO-NR₄-alkylene or -SO₂-NR₄-alkylene group wherein the alkylene moiety in each case contains 1 to 8 carbon atoms, whilst the linking to the adjacent group C in each case must take place via the carbonyl or sulphonyl group wherein

R₄ denotes a hydrogen atom or a C₁₋₄-alkyl group,

C

or, if D is bound to a carbon atom of the group E, it may also denote a bond

or, if D is bound to a nitrogen atom of the group E, it may also denote a carbonyl or sulphonyl group,

E denotes an R₆O-CO-alkylene-NR₅, (R₇O-PO-OR₈)-alkylene-NR₅ or (R₇O-PO-R₉)-alkylene-NR₅-group wherein in each case the alkylene moiety, which is straight-chained and contains 1 to 6 carbon atoms, may additionally be substituted by one or two C₁₋₂-alkyl groups or by an R₆O-CO or R₆O-CO-C₁₋₂-alkyl group, wherein

R₅ denotes a hydrogen atom,

a C₁₋₄-alkyl group, which may be substituted by an R₆O-CO, (R₇O-PO-OR₈) or (R₇O-PO-R₉) group,

an ethyl or propyl group optionally substituted by one or two methyl or ethyl groups, which may be terminally substituted in each case by a C₁₋₆-alkylcarbonylsulphenyl, C₃₋₇-cycloalkylcarbonylsulphenyl, C₃₋₇-cycloalkyl-C₁₋₃-alkylcarbonylsulphenyl, arylcarbonylsulphenyl or aryl-C₁₋₃-alkylcarbonylsulphenyl group,

an ethyl or propyl group optionally substituted by one or two methyl or ethyl groups which may be terminally substituted in each case by a C₁₋₆-alkylcarbonyloxy, C₃₋₇-cycloalkylcarbonyloxy, C₃₋₇-cycloalkyl-C₁₋₃-alkylcarbonyloxy, arylcarbonyloxy or aryl-C₁₋₃-alkylcarbonyloxy group,

an ethyl or propyl group optionally substituted by one or two methyl or ethyl groups, each of which may be terminally substituted by a hydroxy, C₁₋₄-alkoxy, amino, C₁₋₄-alkylamino or di-(C₁₋₄-alkyl)-amino group or by a 4- to 7-membered alkyleneimino group, whilst in the abovementioned 6- to 7-membered alkyleneimino groups a methylene group in the 4 position may be replaced by an oxygen or sulphur atom, by a sulphinyl, sulphonyl, imino or N-(C₁₋₄-alkyl)-imino group,

a C₃₋₇-cycloalkyl or C₃₋₇-cycloalkyl-C₁₋₃-alkyl group,

C 1

R₆, R₇ and R₈, which may be identical or different, in each case denote a hydrogen atom,

a C₁₋₈-alkyl group, which may be substituted by a hydroxy, C₁₋₄-alkoxy, amino, C₁₋₄-alkylamino or di-(C₁₋₄-alkyl)-amino group or by a 4- to 7-membered alkyleneimino group, whilst in the abovementioned 6- to 7-membered alkyleneimino groups in each case a methylene group in the 4 position may be replaced by an oxygen or sulphur atom or by a sulphinyl, sulphonyl, imino or N-(C₁₋₄-alkyl)-imino group,

a C₄₋₇-cycloalkyl group optionally substituted by 1 or 2 methyl groups,

a C₃₋₅-alkenyl or C₃₋₅-alkynyl group, wherein the unsaturated part may not be linked to the oxygen atom,

a C₃₋₇-cycloalkyl-C₁₋₄-alkyl, aryl, aryl-C₁₋₄-alkyl or R_gCO-O-(R_eCR_f)-group, whilst

R_e and R_f, which may be identical or different, in each case denote a hydrogen atom or a C₁₋₄-alkyl group and

R_g denotes a C₁₋₄-alkyl, C₃₋₇-cycloalkyl, C₁₋₄-alkoxy or C₅₋₇-cycloalkoxy group,

and R₉ denotes a C₁₋₄-alkyl, aryl or aryl-C₁₋₄-alkyl group,

a 4- to 7-membered alkyleneimino group which may be substituted by an R₆O-CO, (R₇O-PO-OR₈), (R₇O-PO-R₉), R₆O-CO-C₁₋₄-alkyl, bis-(R₆O-CO)-C₁₋₄-alkyl, (R₇O-PO-OR₈)-C₁₋₄-alkyl or (R₇O-PO-R₉)-C₁₋₄-alkyl group wherein R₆ to R₉ are as hereinbefore defined,

a 4- to 7-membered alkyleneimino group which is substituted by two R₆OCO or R₆OCO-C₁₋₄-alkyl groups or by an R₆OCO-group and an R₆OCO-C₁₋₄-alkyl group wherein R₆ is as hereinbefore defined,

a piperazino or homopiperazino group which is substituted in the 4 position by the group R₁₀ and is additionally substituted at a cyclic carbon atom by an R₆O-CO, (R₇O-PO-OR₈), (R₇O-PO-R₉), R₆O-CO-C₁₋₄-alkyl, bis-(R₆O-CO)-C₁₋₄-alkyl, (R₇O-PO-OR₈)-C₁₋₄-alkyl or (R₇O-PO-R₉)-C₁₋₄-alkyl group wherein R₆ to R₉ are as hereinbefore defined and

R₁₀ denotes a hydrogen atom, a C₁₋₄-alkyl, formyl, C₁₋₄-alkylcarbonyl or C₁₋₄-alkylsulphonyl group,

a piperazino or homopiperazino group which is substituted in the 4 position by the group R₁₀ and additionally at cyclic carbon atoms by two R₆O-CO or R₆O-CO-C₁₋₄-alkyl groups or by an R₆O-CO-group and an R₆O-CO-C₁₋₄-alkyl group wherein R₆ and R₁₀ are as hereinbefore defined,

a piperazino or homopiperazino group which is substituted in each case in the 4 position by an R₆O-CO-C₁₋₄-alkyl, bis-(R₆O-CO)-C₁₋₄-alkyl, (R₇O-PO-OR₈)-C₁₋₄-alkyl or (R₇O-PO-R₉)-C₁₋₄-alkyl group wherein R₆ to R₉ are as hereinbefore defined,

a piperazino or homopiperazino group which is substituted in the 4 position by an R₆O-CO-C₁₋₄-alkyl, bis-(R₆O-CO)-C₁₋₄-alkyl, (R₇O-PO-OR₈)-C₁₋₄-alkyl or (R₇O-PO-R₉)-C₁₋₄-alkyl group and is additionally substituted at cyclic carbon atoms by one or two R₆O-CO or R₆O-CO-C₁₋₄-alkyl groups or by an R₆O-CO-group and an R₆O-CO-C₁₋₄-alkyl group wherein R₆ to R₉ are as hereinbefore defined,

a morpholino or homomorpholino group which is substituted in each case by an R_6O-CO , $(R_7O-PO-OR_8)$, $(R_7O-PO-R_9)$, $R_6O-CO-C_{1-4}$ -alkyl, bis- $(R_6O-CO)-C_{1-4}$ -alkyl, $(R_7O-PO-OR_8)-C_{1-4}$ -alkyl or $(R_7O-PO-R_9)-C_{1-4}$ -alkyl group wherein R_6 to R_9 are as hereinbefore defined,

a morpholino or homomorpholino group which is substituted by two R_6O-CO or $R_6O-CO-C_{1-4}$ -alkyl groups or by an R_6O-CO -group and an $R_6O-CO-C_{1-4}$ -alkyl group wherein R_6 is as hereinbefore defined,

a pyrrolidinyl, piperidinyl or hexahydroazepinyl group substituted in the 1 position by the group R_{10} , whilst the abovementioned 5- to 7-membered rings are additionally substituted in each case at a carbon atom by an R_6O-CO , $(R_7O-PO-OR_8)$, $(R_7O-PO-R_9)$, $R_6O-CO-C_{1-4}$ -alkyl, bis- $(R_6O-CO)-C_{1-4}$ -alkyl, $(R_7O-PO-OR_8)-C_{1-4}$ -alkyl or $(R_7O-PO-R_9)-C_{1-4}$ -alkyl group wherein R_6 to R_{10} are as hereinbefore defined,

C1 a pyrrolidinyl, piperidinyl or hexahydroazepinyl group substituted in the 1 position by the group R_{10} , while the abovementioned 5- to 7-membered rings are in each case additionally substituted at carbon atoms by two R_6O-CO or $R_6O-CO-C_{1-4}$ -alkyl groups or by an R_6O-CO -group and an $R_6O-CO-C_{1-4}$ -alkyl group wherein R_6 and R_{10} are as hereinbefore defined,

a pyrrolidinyl, piperidinyl or hexahydroazepinyl group substituted in the 1 position by an $R_6O-CO-C_{1-4}$ -alkyl, bis- $(R_6O-CO)-C_{1-4}$ -alkyl, $(R_7O-PO-OR_8)-C_{1-4}$ -alkyl or $(R_7O-PO-R_9)-C_{1-4}$ -alkyl group wherein R_6 to R_9 are as hereinbefore defined,

a pyrrolidinyl, piperidinyl or hexahydroazepinyl group substituted in the 1 position by an $R_6O-CO-C_{1-4}$ -alkyl, bis- $(R_6O-CO)-C_{1-4}$ -alkyl, $(R_7O-PO-OR_8)-C_{1-4}$ -alkyl or $(R_7O-PO-R_9)-C_{1-4}$ -alkyl group, while the abovementioned 5- to 7-membered rings are in each case additionally substituted at carbon atoms by one or two R_6O-CO or $R_6O-CO-C_{1-4}$ -alkyl groups or by an R_6O-CO -group and an $R_6O-CO-C_{1-4}$ -alkyl group wherein R_6 to R_9 are as hereinbefore defined,

a 2-oxo-morpholino group which may be substituted by 1 to 4 C_{1-2} -alkyl groups,

a 2-oxo-thiomorpholino group which may be substituted by 1 to 4 C_{1-2} -alkyl groups,

a morpholino or thiomorpholino group which is substituted in the 2 position by a C₁₋₄-alkoxy group,

a morpholino or thiomorpholino group which is substituted in the 2 and 6 positions by a C₁₋₄-alkoxy group,

a C₁₋₄-alkyl-NR₅-group wherein the C₁₋₄-alkyl moiety, which is straight-chained and may additionally be substituted by one or two methyl groups, is in each case terminally substituted by a di-(C₁₋₄-alkoxy)-methyl or tri-(C₁₋₄-alkoxy)-methyl group, whilst R₅ is as hereinbefore defined,

a C₁₋₄-alkyl-NR₅-group wherein the C₁₋₄-alkyl moiety, which is straight-chained and may additionally be substituted by one or two methyl groups, is in each case terminally substituted by a 1,3-dioxolan-2-yl or 1,3-dioxan-2-yl group optionally substituted by one or two methyl groups, while R₅ is as hereinbefore defined,

an R₁₁NR₅-group wherein R₅ is as hereinbefore defined and

R₁₁ denotes a 2-oxo-tetrahydrofuran-3-yl, 2-oxo-tetrahydrofuran-4-yl, 2-oxo-tetrahydropyran-3-yl, 2-oxo-tetrahydropyran-4-yl, 2-oxo-tetrahydropyran-5-yl, 2-oxo-tetrahydrothiophen-3-yl, 2-oxo-tetrahydrothiophen-4-yl, 2-oxo-tetrahydrothiopyran-3-yl, 2-oxo-tetrahydrothiopyran-4-yl or 2-oxo-tetrahydrothiopyran-5-yl group optionally substituted by one or two methyl groups,

or D together with E denotes an R_gCO-O-(R_eCR_f)-O-CO, (R₇O-PO-OR₈) or (R₇O-PO-R₉)-group wherein R_e to R_g and R₇ to R₉ are as hereinbefore defined,

F and G together denote a hydrogen atom,

a C₁₋₆-alkoxy group optionally substituted from position 2 onwards by a hydroxy or C₁₋₄-alkoxy group,

a C₃₋₇-cycloalkoxy or C₃₋₇-cycloalkyl-C₁₋₄-alkoxy group,

whilst by the aryl moieties mentioned in the definitions of the abovementioned groups is meant a phenyl group which in each case may be monosubstituted by R₁₂, mono-, di- or

trisubstituted by R_{13} or monosubstituted by R_{12} and additionally mono- or disubstituted by R_{13} , whilst the substituents may be identical or different and

R_{12} denotes a cyano, carboxy, C_{1-4} -alkoxycarbonyl, aminocarbonyl, C_{1-4} -alkylaminocarbonyl, di-(C_{1-4} -alkyl)-aminocarbonyl, C_{1-4} -alkylsulphenyl, C_{1-4} -alkylsulphanyl, C_{1-4} -alkylsulphonyl, hydroxy, C_{1-4} -alkylsulphonyloxy, trifluoromethoxy, nitro, amino, C_{1-4} -alkylamino, di-(C_{1-4} -alkyl)-amino, C_{1-4} -alkyl-carbonylamino, $N-(C_{1-4}$ -alkyl)- C_{1-4} -alkylcarbonylamino, C_{1-4} -alkylsulphonylamino, $N-(C_{1-4}$ -alkyl)- C_{1-4} -alkylsulphonylamino, aminosulphonyl, C_{1-4} -alkylaminosulphonyl or di-(C_{1-4} -alkyl)-aminosulphonyl group or a carbonyl group, which is substituted by a 5- to 7-membered alkyleneimino group, wherein in the abovementioned 6- to 7-membered alkyleneimino groups in each case a methylene group in the 4 position may be replaced by an oxygen or sulphur atom, by a sulphanyl, sulphonyl, imino or $N-(C_{1-4}$ -alkyl)-imino-group, and

C 1

R_{13} denotes a fluorine, chlorine, bromine or iodine atom, a C_{1-4} -alkyl, trifluoromethyl or C_{1-4} -alkoxy group or

two groups R_{13} , if they are bound to adjacent carbon atoms, together denote a C_{3-5} -alkylene, methylenedioxy or 1,3-butadien-1,4-ylene group,

or a tautomer or salt thereof.

Claim 6 (previously presented): A compound of the formula I according to claim 5, wherein

R_a denotes a hydrogen atom,

R_b denotes a phenyl, benzyl or 1-phenylethyl group wherein the phenyl nucleus is substituted in each case by the groups R_1 to R_3 , while

R_1 and R_2 , which may be identical or different, each denote a hydrogen, fluorine, chlorine, bromine or iodine atom,

a methyl, ethyl, hydroxy, methoxy, ethoxy, amino, cyano, vinyl or ethynyl group,

an aryl, aryloxy, arylmethyl or arylmethoxy group,

a methyl or methoxy group substituted by 1 to 3 fluorine atoms or

R_1 together with R_2 , if they are bound to adjacent carbon atoms, denote a
 $-CH=CH-CH=CH$, $-CH=CH-NH$ or $-CH=N-NH$ group and

R_3 denotes a hydrogen, fluorine, chlorine or bromine atom,

C l

R_c and R_d in each case denote a hydrogen atom,

X denotes a methine group substituted by a cyano group or a nitrogen atom,

A denotes an $-NH-$ group optionally substituted by a methyl or ethyl group,

B denotes a carbonyl group,

C denotes a 1,1- or 1,2-vinylene group which is substituted in each case by one or two methyl groups or may be substituted by a trifluoromethyl group,

an ethynylene group or

a 1,3-butadien-1,4-ylene group optionally substituted by a methyl or trifluoromethyl group,

D denotes an alkylene or $-CO$ -alkylene group wherein the alkylene moiety in each case contains 1 to 4 carbon atoms, while the linking of the $-CO$ -alkylene group to the adjacent group C in each case must take place via the carbonyl group,

a -CO-O-alkylene or -CO-NR₄-alkylene- group wherein the alkylene moiety in each case contains 1 to 4 carbon atoms, while the linking to the adjacent group C in each case must take place via the carbonyl group wherein

R₄ denotes a hydrogen atom or a methyl or ethyl group,

or, if D is bound to a carbon atom of the group E, it may also denote a bond

or, if D is bound to a nitrogen atom of the group E, it may also denote a carbonyl or sulphonyl group,

E denotes an R₆O-CO-alkylene-NR₅, (R₇O-PO-OR₈)-alkylene-NR₅ or (R₇O-PO-R₉)-alkylene-NR₅ group wherein in each case the alkylene moiety, which is straight-chained and contains 1 to 4 carbon atoms, may additionally be substituted by one or two C₁₋₂-alkyl groups or by an R₆O-CO or R₆O-CO-C₁₋₂-alkyl group, while

R₅ denotes a hydrogen atom,

a C₁₋₄-alkyl group which may be substituted by an R₆O-CO group,

an ethyl or propyl group optionally substituted by one or two methyl or ethyl groups which is terminally substituted in each case by a hydroxy, C₁₋₄-alkoxy, di-(C₁₋₄-alkyl)amino, C₁₋₆-alkylcarbonylsulphenyl, C₃₋₆-cycloalkylcarbonylsulphenyl, C₃₋₆-cycloalkyl-C₁₋₃-alkylcarbonylsulphenyl, arylcarbonylsulphenyl or aryl-C₁₋₃-alkylcarbonylsulphenyl group,

an ethyl or propyl group optionally substituted by one or two methyl or ethyl groups which is terminally substituted in each case by a C₁₋₆-alkylcarbonyloxy, C₃₋₆-cycloalkylcarbonyloxy, C₃₋₆-cycloalkyl-C₁₋₃-alkylcarbonyloxy, arylcarbonyloxy or aryl-C₁₋₃-alkylcarbonyloxy group,

a C₃₋₆-cycloalkyl or C₃₋₆-cycloalkyl-C₁₋₃-alkyl group,

R_6 , R_7 and R_8 , which may be identical or different, in each case denote a hydrogen atom,

a C_{1-8} -alkyl group which may be substituted by a hydroxy, C_{1-4} -alkoxy, or di- $(C_{1-4}$ -alkyl)-amino group or by a 4- to 7-membered alkyleneimino group, while in the abovementioned 6- to 7-membered alkyleneimino groups in each case a methylene group in the 4 position may be replaced by an oxygen atom or by an $N-(C_{1-2}$ -alkyl)-imino group,

a C_{4-6} -cycloalkyl group,

a C_{3-5} -alkenyl or C_{3-5} -alkynyl group, while the unsaturated moiety may not be linked to the oxygen atom,

C |

a C_{3-6} -cycloalkyl- C_{1-4} -alkyl, aryl, aryl- C_{1-4} -alkyl or $R_gCO-O-(R_eCR_f)$ group, while

R_e and R_f , which may be identical or different, in each case denote a hydrogen atom or a C_{1-4} -alkyl group and

R_g denotes a C_{1-4} -alkyl, C_{3-6} -cycloalkyl, C_{1-4} -alkoxy or C_{5-6} -cycloalkoxy group,

and R_9 denotes a C_{1-4} -alkyl group,

a 4- to 7-membered alkyleneimino group which is substituted by an R_6O-CO , $R_6O-CO-C_{1-4}$ -alkyl or bis- $(R_6O-CO)-C_{1-4}$ -alkyl group wherein R_6 is as hereinbefore defined,

a 4- to 7-membered alkyleneimino group which is substituted by two R_6O-CO or $R_6O-CO-C_{1-4}$ -alkyl groups wherein R_6 is as hereinbefore defined,

a piperazino or homopiperazino group which is substituted in the 4 position by the group R_{10} and additionally at a cyclic carbon atom by an R_6O-CO , $R_6O-CO-C_{1-4}$ -alkyl or bis- $(R_6O-CO)-C_{1-4}$ -alkyl group wherein R_6 is as hereinbefore defined and

R_{10} denotes a hydrogen atom, a methyl or ethyl group,

a piperazino or homopiperazino group which is substituted in the 4 position by the group R_{10} and is additionally substituted at cyclic carbon atoms by two R_6O-CO or $R_6O-CO-C_{1-4}-alkyl$ groups wherein R_6 and R_{10} are as hereinbefore defined,

a piperazino or homopiperazino group which is substituted in each case in the 4 position by an $R_6O-CO-C_{1-4}-alkyl$, $bis-(R_6O-CO)-C_{1-4}-alkyl$, $(R_7O-PO-OR_8)-C_{1-4}-alkyl$ or $(R_7O-PO-R_9)-C_{1-4}-alkyl$ group wherein R_6 to R_9 are as hereinbefore defined,

a piperazino or homopiperazino group which is substituted in the 4 position by an $R_6O-CO-C_{1-4}-alkyl$ or $bis-(R_6O-CO)-C_{1-4}-alkyl$ group and is additionally substituted at cyclic carbon atoms by one or two R_6O-CO or $R_6O-CO-C_{1-4}-alkyl$ groups wherein R_6 is as hereinbefore defined,

C 1
a morpholino or homomorpholino group which is substituted in each case by an R_6O-CO , $R_6O-CO-C_{1-4}-alkyl$, or $bis-(R_6O-CO)-C_{1-4}-alkyl$ group wherein R_6 is as hereinbefore defined,

a morpholino or homomorpholino group which is substituted by two R_6O-CO or $R_6O-CO-C_{1-4}-alkyl$ groups wherein R_6 is as hereinbefore defined,

a pyrrolidinyl, piperidinyl or hexahydroazepinyl group substituted in the 1 position by the group R_{10} , while the abovementioned 5- to 7-membered rings in each case are additionally substituted at a carbon atom by an R_6O-CO , $R_6O-CO-C_{1-4}-alkyl$ or $bis-(R_6O-CO)-C_{1-4}-alkyl$ group wherein R_6 and R_{10} are as hereinbefore defined,

a pyrrolidinyl, piperidinyl or hexahydroazepinyl group substituted in the 1 position by the group R_{10} , while the abovementioned 5- to 7-membered rings in each case are additionally substituted at carbon atoms by two R_6O-CO or $R_6O-CO-C_{1-4}-alkyl$ groups wherein R_6 and R_{10} are as hereinbefore defined,

a pyrrolidinyl, piperidinyl or hexahydroazepinyl group substituted in the 1 position by an $R_6O-CO-C_{1-4}-alkyl$, $bis-(R_6O-CO)-C_{1-4}-alkyl$, $(R_7O-PO-OR_8)-C_{1-4}-alkyl$ or $(R_7O-PO-R_9)-C_{1-4}-alkyl$ group wherein R_6 to R_9 are as hereinbefore defined,

a pyrrolidinyl, piperidinyl or hexahydroazepinyl group substituted in the 1 position by an $R_6O-CO-C_{1-4}$ -alkyl or bis- $(R_6O-CO)-C_{1-4}$ -alkyl group, while the abovementioned 5- to 7-membered rings in each case are additionally substituted at carbon atoms by one or two R_6O-CO or $R_6O-CO-C_{1-4}$ -alkyl groups wherein R_6 is as hereinbefore defined,

a 2-oxo-morpholino group which may be substituted by 1 to 4 C_{1-2} -alkyl groups,

a 2-oxo-thiomorpholino group which may be substituted by 1 to 4 C_{1-2} -alkyl groups,

a morpholino group which is substituted in the 2 position by a C_{1-4} -alkoxy group,

a morpholino group which is substituted in the 2 and 6 positions in each case by a C_{1-4} -alkoxy group,

C 1

a C_{1-4} -alkyl- NR_5 group wherein the C_{1-4} -alkyl moiety, which is straight-chained, is terminally substituted by a di- $(C_{1-4}$ -alkoxy)-methyl group, while R_5 is as hereinbefore defined,

a C_{1-4} -alkyl- NR_5 group wherein the C_{1-4} -alkyl moiety, which is straight-chained, is terminally substituted by a 1,3-dioxolan-2-yl or 1,3-dioxan-2-yl group, while R_5 is as hereinbefore defined,

a $R_{11}NR_5$ group wherein R_5 is as hereinbefore defined and

R_{11} denotes a 2-oxo-tetrahydrofuran-3-yl, 2-oxo-tetrahydrofuran-4-yl, 2-oxo-tetrahydropyran-3-yl, 2-oxo-tetrahydropyran-4-yl, 2-oxo-tetrahydropyran-5-yl, 2-oxo-tetrahydrothiophen-3-yl, 2-oxo-tetrahydrothiophen-4-yl, 2-oxo-tetrahydrothiopyran-3-yl, 2-oxo-tetrahydrothiopyran-4-yl or 2-oxo-tetrahydrothiopyran-5-yl group optionally substituted by one or two methyl groups,

or D together with E denotes an $R_gCO-O-(R_eCR_f)-O-CO$ or $(R_7O-PO-OR_8)$ group wherein R_e to R_g and R_7 to R_9 are as hereinbefore defined,

F and G together denote a hydrogen atom,

a C_{1-6} -alkoxy group optionally substituted from position 2 by a hydroxy or C_{1-4} -alkoxy group,

a C_{4-7} -cycloalkoxy or C_{3-7} -cycloalkyl- C_{1-4} -alkoxy group,

whilst by the aryl moieties mentioned in the definitions of the abovementioned groups is meant a phenyl group which in each case may be monosubstituted by R_{12} , mono- or disubstituted by R_{13} or monosubstituted by R_{12} and additionally mono- or disubstituted by R_{13} , whilst the substituents may be identical or different and

R_{12} denotes a cyano, C_{1-2} -alkoxycarbonyl, aminocarbonyl, C_{1-2} -alkylaminocarbonyl, di- $(C_{1-2}$ -alkyl)-aminocarbonyl, C_{1-2} -alkylsulphenyl, C_{1-2} -alkylsulphinyl, C_{1-2} -alkylsulphonyl, hydroxy, nitro, amino, C_{1-2} -alkylamino or di- $(C_{1-2}$ -alkyl)-amino, and

R_{13} denotes a fluorine, chlorine, bromine or iodine atom, a C_{1-2} -alkyl, trifluoromethyl or C_{1-2} -alkoxy group or

two groups R_{13} , if they are bound to adjacent carbon atoms, together denote a C_{3-5} -alkylene, methylenedioxy or 1,3-butadien-1,4-ylene group,

or a tautomer or salt thereof.

Claim 7 (previously presented): A compound of the formula I according to claim 5, wherein

R_a denotes a hydrogen atom,

R_b denotes a phenyl, benzyl or 1-phenylethyl group wherein the phenyl nucleus is substituted in each case by the groups R_1 to R_3 , while

R_1 and R_2 , which may be identical or different, each denote a hydrogen, fluorine, chlorine or bromine atom, or a methyl, trifluoromethyl, methoxy, ethynyl or cyano group,

R_3 denotes a hydrogen atom,

R_c and R_d in each case denote a hydrogen atom,

X denotes a methine group substituted by a cyano group, or a nitrogen atom,

A denotes an $-NH-$ group,

B denotes a carbonyl group,

C denotes a 1,1- or 1,2-vinylene group,

an ethynylene group or

C |

a 1,3-butadien-1,4-ylene group,

D denotes a C_{1-4} -alkylene group,

a $-CO-NR_4$ -alkylene group wherein the alkylene moiety contains 2 to 4 carbon atoms, while the linking to the adjacent group C in each case must take place via the carbonyl group, wherein

R_4 denotes a hydrogen atom,

or, if D is bound to a carbon atom of the group E , it may also denote a bond

or, if D is bound to a nitrogen atom of the group E , it may also denote a carbonyl group,

E denotes an R_6O-CO -alkylene- NR_5 , $(R_7O-PO-OR_8)$ -alkylene- NR_5 or $(R_7O-PO-R_9)$ -alkylene- NR_5 group wherein in each case the alkylene moiety, which is straight-chained and contains 1 to 4 carbon atoms, may additionally be substituted by one or two C_{1-2} -alkyl groups or by an R_6O-CO or $R_6O-CO-C_{1-2}$ -alkyl group, while

R_5 denotes a hydrogen atom,

a C_{1-4} -alkyl group which may be substituted by an R_6O-CO group,

an ethyl group optionally substituted by one or two methyl or ethyl groups which is terminally substituted by a C_{1-4} -alkylcarbonylsulphenyl, arylcarbonylsulphenyl or arylmethylcarbonylsulphenyl group,

an ethyl group optionally substituted by one or two methyl or ethyl groups which is terminally substituted by a hydroxy, C_{1-4} -alkylcarbonyloxy, arylcarbonyloxy or arylmethylcarbonyloxy group,

a 2,2-dimethoxyethyl or 2,2-diethoxyethyl group,

C_1

a C_{3-6} -cycloalkyl or C_{3-6} -cycloalkyl-methyl group,

R_6 , R_7 and R_8 , which may be identical or different, in each case denote a hydrogen atom,

a C_{1-8} -alkyl group,

a cyclopentyl, cyclopentylmethyl, cyclohexyl or cyclohexylmethyl group,

an aryl, arylmethyl or $R_gCO-O-(R_eCR_f)$ group, wherein

R_e denotes a hydrogen atom or a C_{1-4} -alkyl group,

R_f denotes a hydrogen atom and

R_g denotes a C_{1-4} -alkyl, cyclopentyl, cyclohexyl, C_{1-4} -alkoxy, cyclopentyloxy or cyclohexyloxy group,

and R_9 denotes a methyl or ethyl group,

a pyrrolidino or piperidino group which is substituted by an R_6O-CO or $R_6O-CO-C_{1-2}-alkyl$ group wherein R_6 is as hereinbefore defined,

a pyrrolidino or piperidino group which is substituted by two R_6O-CO or $R_6O-CO-C_{1-2}-alkyl$ groups wherein R_6 is as hereinbefore defined,

a piperazino group which is substituted in the 4 position by the group R_{10} and is additionally substituted at a cyclic carbon atom by an R_6O-CO or $R_6O-CO-C_{1-2}-alkyl$ group, while R_6 is as hereinbefore defined and

R_{10} denotes a hydrogen atom, a methyl or ethyl group,

a piperazino group which is substituted in the 4 position by an $R_6O-CO-C_{1-4}-alkyl$, $bis-(R_6O-CO)-C_{1-4}-alkyl$ or $(R_7O-PO-OR_8)-C_{1-2}-alkyl$ group wherein R_6 to R_8 are as hereinbefore defined,

C 1

a piperazino group which is substituted in the 4 position by an $R_6O-CO-C_{1-2}-alkyl$ group and is additionally substituted at a cyclic carbon atom by an R_6O-CO or $R_6O-CO-C_{1-2}-alkyl$ group wherein R_6 is as hereinbefore defined,

a morpholino group which is substituted by an R_6O-CO or $R_6O-CO-C_{1-2}-alkyl$ group, while R_6 is as hereinbefore defined,

a piperidinyl group substituted in the 1 position by an $R_6O-CO-C_{1-4}-alkyl$, $bis-(R_6O-CO)-C_{1-4}-alkyl$ or $(R_7O-PO-OR_8)-C_{1-2}-alkyl$ group wherein R_6 to R_8 are as hereinbefore defined,

a 2-oxo-morpholino group which may be substituted by 1 to 2 C_{1-2} -alkyl groups,

a 2-oxo-thiomorpholino group which may be substituted by 1 to 2 C_{1-2} -alkyl groups,

a morpholino group which is substituted in the 2 position by a methoxy or ethoxy group,

a morpholino group which is substituted in the 2 and 6 positions in each case by a methoxy or ethoxy group,

a 2,2-dimethoxyethyl-NR₅, 2,2-diethoxyethyl-NR₅, 1,3-dioxolan-2-yl-methyl-NR₅ or 1,3-dioxan-2-yl-methyl-NR₅ group wherein R₅ is as hereinbefore defined,

a N-methyl-R₁₁N or N-ethyl-R₁₁N group wherein

R₁₁ denotes a 2-oxo-tetrahydrofuran-3-yl, 2-oxo-tetrahydrofuran-4-yl, 2-oxo-tetrahydropyran-3-yl, 2-oxo-tetrahydropyran-4-yl, 2-oxo-tetrahydropyran-5-yl, 2-oxo-tetrahydrothiophen-3-yl, 2-oxo-tetrahydrothiophen-4-yl, 2-oxo-tetrahydrothiopyran-3-yl, 2-oxo-tetrahydrothiopyran-4-yl or 2-oxo-tetrahydrothiopyran-5-yl group optionally substituted by one or two methyl groups,

or D together with E denotes an R_gCO-O-(R_eCR_f)-O-CO or (R₇O-PO-OR₈) group wherein R_e to R_g and R₇ and R₈ are as hereinbefore defined,

C 1

F and G together denote a hydrogen atom, a methoxy, ethoxy, C₄₋₆-cycloalkoxy or C₃₋₆-cycloalkyl-C₁₋₃-alkoxy group,

while the aryl moieties mentioned in the definition of the abovementioned groups denote a phenyl group which may be mono- or disubstituted by R₁₃, while the substituents may be identical or different and

R₁₃ denotes a fluorine, chlorine, bromine or iodine atom, a C₁₋₂-alkyl, trifluoromethyl or C₁₋₂-alkoxy group or

two groups R₁₃, if they are bound to adjacent carbon atoms, together denote a C₃₋₄-alkylene, methylenedioxy or 1,3-butadien-1,4-ylene group,

or a tautomer or salt thereof.

Claim 8 (previously presented): A compound of the formula I according to claim 5, wherein

R_a denotes a hydrogen atom,

R_b denotes a phenyl, benzyl or 1-phenylethyl group wherein the phenyl nucleus is substituted in each case by the groups R₁ to R₃, wherein

R₁ and R₂, which may be identical or different, each denote a hydrogen, fluorine, chlorine or bromine atom or a methyl group and

R₃ denotes a hydrogen atom,

R_c and R_d each denote a hydrogen atom,

X denotes a methine group substituted by a cyano group, or a nitrogen atom,

C |

A denotes an -NH- group,

B denotes a carbonyl group,

C denotes a 1,2-vinylene or an ethynylene group,

D denotes a C₁₋₄-alkylene group,

a -CO-NR₄-alkylene group wherein the alkylene moiety contains 2 or 3 carbon atoms, while the linking to the adjacent group C must take place via the carbonyl group wherein

R₄ denotes a hydrogen atom,

or, if D is bound to a nitrogen atom of the group E, it may also denote a carbonyl group,

E denotes an R₆O-CO-alkylene-NR₅ or (R₇O-PO-OR₈)-alkylene-NR₅ group wherein in each case the alkylene moiety, which is straight-chained and contains 1 to 2 carbon atoms, may additionally be substituted by a methyl group or by an R₆O-CO or R₆O-CO-methyl group, while

R_5 denotes a hydrogen atom,

a C_{1-2} -alkyl group which may be substituted by an R_6O-CO group,

an ethyl group optionally substituted by one or two methyl groups, which is terminally substituted by a hydroxy, C_{1-2} -alkylcarbonylsulphenyl or C_{1-2} -alkylcarbonyloxy group,

a 2,2-dimethoxyethyl or 2,2-diethoxyethyl group,

R_6 denotes a hydrogen atom,

a C_{1-8} -alkyl group,

a cyclopentyl, cyclopentylmethyl, cyclohexyl or cyclohexylmethyl group,

C_1

a phenyl group optionally substituted by one or two methyl groups, a phenylmethyl group which may be substituted in the phenyl moiety by one or two methyl groups, a 5-indanyl group or an $R_gCO-O-(R_eCR_f)$ group, while

R_e denotes a hydrogen atom or a methyl group,

R_f denotes a hydrogen atom and

R_g denotes a C_{1-4} -alkyl or C_{1-2} -alkoxy group,

R_7 and R_8 , which may be identical or different, in each case denote a hydrogen atom, a methyl, ethyl or phenyl group,

a pyrrolidino or piperidino group which is substituted by an R_6O-CO or R_6O-CO -methyl group, wherein R_6 is as hereinbefore defined,

a pyrrolidino or piperidino group which is substituted by two R_6O-CO or R_6O-CO -methyl groups wherein R_6 is as hereinbefore defined,

a piperazino group which is substituted in the 4 position by the group R₁₀ and additionally at a cyclic carbon atom by an R₆O-CO group, while R₆ is as hereinbefore defined and

R₁₀ denotes a hydrogen atom, a methyl or ethyl group,

a piperazino group which is substituted in the 4 position by an R₆O-CO-C₁₋₄-alkyl, bis-(R₆O-CO)-C₁₋₄-alkyl or (R₇O-PO-OR₈)-C₁₋₂-alkyl group wherein R₆ to R₈ are as hereinbefore defined,

a piperazino group which is substituted in the 4 position by an R₆O-CO-methyl group and additionally at a cyclic carbon atom by an R₆O-CO group wherein R₆ is as hereinbefore defined,

a morpholino group which is substituted by an R₆O-CO- group, wherein R₆ is as hereinbefore defined,

a 2-oxo-morpholino group which may be substituted by 1 to 2 C₁₋₂-alkyl groups,

a 2-oxo-thiomorpholino group which may be substituted by 1 to 2 C₁₋₂-alkyl groups,

a morpholino group which is substituted in the 2 position by a methoxy or ethoxy group,

a morpholino group which is substituted in the 2 and 6 positions in each case by a methoxy or ethoxy group,

a 2,2-dimethoxyethyl-NR₅, 2,2-diethoxyethyl-NR₅ or 1,3-dioxolan-2-yl-methyl-NR₅- group wherein R₅ is as hereinbefore defined,

an N-methyl-R₁₁N or N-ethyl-R₁₁N group wherein

R₁₁ denotes a 2-oxo-tetrahydrofuran-3-yl or 2-oxo-tetrahydrofuran-4-yl group,

or D together with E denotes an $R_gCO-O-(R_eCR_f)-O-CO$ group wherein R_e to R_g are as hereinbefore defined,

F and G together denote a hydrogen atom,

a methoxy, ethoxy, C_{4-6} -cycloalkoxy or C_{3-6} -cycloalkyl- C_{1-3} -alkoxy group,

or a tautomer or salt thereof.

Claim 9 (previously presented): A compound of the formula I according to claim 8, wherein R_b denotes a 1-phenylethyl group wherein the phenyl nucleus is substituted in each case by the groups R_1 to R_3 , wherein

R_1 and R_2 , which may be identical or different, each denote a hydrogen, fluorine, chlorine or bromine atom or a methyl group and

R_3 denotes a hydrogen atom,

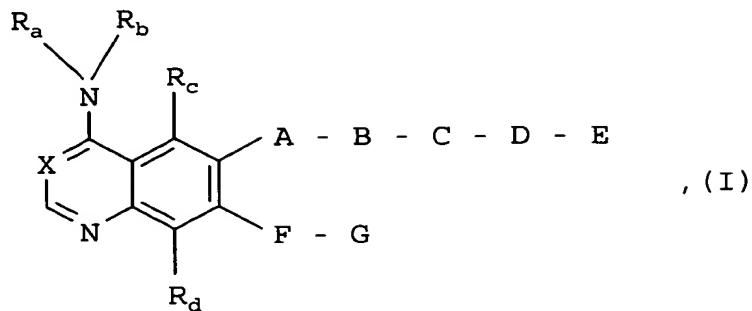
or a tautomer or salt thereof.

Claim 10 (previously presented): A compound of the formula I according to claim 8, wherein F and G together denote a C_{4-6} -cycloalkoxy or C_{3-6} -cycloalkyl- C_{1-3} -alkoxy group,

or a tautomer or salt thereof.

Claim 11 (previously presented): A compound of the formula I according to claim 8, wherein E denotes a 2-oxo-morpholino group which may be substituted by 1 to 2 C_{1-2} -alkyl groups, or a 2-oxo-thiomorpholino group which may be substituted by 1 to 2 C_{1-2} -alkyl groups.

Claim 12 (currently amended): A compound of the formula



wherein

R_a denotes a hydrogen atom or a C_{1-4} -alkyl group,

R_b denotes a phenyl, benzyl or 1-phenylethyl group wherein the phenyl nucleus is substituted in each case by the groups R_1 to R_3 , whilst

1

R_1 and R_2 , which may be identical or different, in each case denote a hydrogen, fluorine, chlorine, bromine or iodine atom,

a C_{1-4} -alkyl, hydroxy, C_{1-4} -alkoxy, C_{3-6} -cycloalkyl, C_{4-6} -cycloalkoxy, C_{2-5} -alkenyl or C_{2-5} -alkynyl group,

an aryl, aryloxy, arylmethyl or arylmethoxy group,

a C_{3-5} -alkenyloxy or C_{3-5} -alkynyloxy group, wherein the unsaturated moiety may not be linked to the oxygen atom,

a C_{1-4} -alkylsulphenyl, C_{1-4} -alkylsulphanyl, C_{1-4} -alkylsulphonyl, C_{1-4} -alkylsulphonyloxy, trifluoromethylsulphenyl, trifluoromethylsulphanyl or trifluoromethylsulphonyl group,

a methyl or methoxy group substituted by 1 to 3 fluorine atoms,

an ethyl or ethoxy group substituted by 1 to 5 fluorine atoms,

a cyano or nitro group or an amino group optionally substituted by one or two C₁₋₄-alkyl groups, wherein the substituents may be identical or different, or

R₁ together with R₂, if they are bound to adjacent carbon atoms, denote a -CH=CH-CH=CH, -CH=CH-NH or -CH=N-NH group and

R₃ denotes a hydrogen, fluorine, chlorine or bromine atom,

a C₁₋₄-alkyl, trifluoromethyl or C₁₋₄-alkoxy group,

R_c and R_d, which may be identical or different, in each case denote a hydrogen, fluorine or chlorine atom, a methoxy group, or a methyl group optionally substituted by a methoxy, dimethylamino, diethylamino, pyrrolidino, piperidino or morpholino group,

C (X denotes a methine group substituted by a cyano group or a nitrogen atom,

A denotes an oxygen atom or an -NH- group optionally substituted by a C₁₋₄-alkyl group,

B denotes a carbonyl or sulphonyl group,

C denotes a 1,3-allenylene, 1,1 or 1,2-vinylene group which may be substituted in each case by one or two methyl groups or by a trifluoromethyl group,

an ethynylene group or

a 1,3-butadien-1,4-ylene group optionally substituted by 1 to 4 methyl groups or by a trifluoromethyl group,

D together with E denotes a hydrogen atom,

a C₁₋₄-alkyl group optionally substituted by 1 to 5 fluorine atoms,

a C₃₋₆-cycloalkyl group,

an aryl, heteroaryl, C₁₋₄-alkylcarbonyl, arylcarbonyl or C₁₋₄-alkoxycarbonyl group,
an aminocarbonyl, C₁₋₄-alkylaminocarbonyl or di-(C₁₋₄-alkyl)-aminocarbonyl group or
a carbonyl group, which is substituted by a 4- to 7-membered alkyleneimino group, whilst in
the abovementioned 6- to 7-membered alkyleneimino groups, a methylene group in the 4
position may be replaced by an oxygen or sulphur atom, by an imino group substituted by the
group R₁₀, by a sulphinyl or sulphonyl group, wherein R₁₀ denotes a hydrogen atom, a
C₁₋₄-alkyl, formyl, C₁₋₄-alkylcarbonyl or C₁₋₄-alkylsulphonyl group is defined as in claim 5,

F denotes a C₁₋₆-alkylene group, a -O-C₁₋₆-alkylene group, wherein the alkylene moiety is
linked to the group G, or an oxygen atom, whilst the latter may not be linked to a nitrogen
atom of the group G, and

C 1
G denotes an R₆O-CO-alkylene-NR₅, (R₇O-PO-OR₈)-alkylene-NR₅ or (R₇O-PO-R₉)-
alkylene-NR₅-group wherein in each case the alkylene moiety, which is straight-
chained and contains 1 to 6 carbon atoms, may additionally be substituted by one or
two C₁₋₂-alkyl groups or by an R₆O-CO or R₆O-CO-C₁₋₂-alkyl group, wherein R₅ to R₉
are defined as in claim 5,

R₅ denotes a hydrogen atom.

a C₁₋₄-alkyl group, which may be substituted by an R₆O-CO, (R₇O-PO-OR₈) or (R₇O-
PO-R₉) group,

an ethyl or propyl group optionally substituted by one or two methyl or ethyl groups,
which may be terminally substituted in each case by a C₁₋₆-alkylcarbonylsulphenyl,
C₃₋₇-cycloalkylcarbonylsulphenyl, C₃₋₇-cycloalkyl-C₁₋₃-alkylcarbonylsulphenyl,
arylcarbonylsulphenyl or aryl-C₁₋₃-alkylcarbonylsulphenyl group,

an ethyl or propyl group optionally substituted by one or two methyl or ethyl groups
which may be terminally substituted in each case by a C₁₋₆-alkylcarbonyloxy,
C₃₋₇-cycloalkylcarbonyloxy, C₃₋₇-cycloalkyl-C₁₋₃-alkylcarbonyloxy, arylcarbonyloxy
or aryl-C₁₋₃-alkylcarbonyloxy group.

an ethyl or propyl group optionally substituted by one or two methyl or ethyl groups, each of which may be terminally substituted by a hydroxy, C₁₋₄-alkoxy, amino, C₁₋₄-alkylamino or di-(C₁₋₄-alkyl)-amino group or by a 4- to 7-membered alkyleneimino group, whilst in the abovementioned 6- to 7-membered alkyleneimino groups a methylene group in the 4 position may be replaced by an oxygen or sulphur atom, by a sulphinyl, sulphonyl, imino or N-(C₁₋₄-alkyl)-imino group,

a C₃₋₇-cycloalkyl or C₃₋₇-cycloalkyl-C₁₋₃-alkyl group,

R₆, R₇ and R₈, which may be identical or different, in each case denote a hydrogen atom,

C1 a C₁₋₈-alkyl group, which may be substituted by a hydroxy, C₁₋₄-alkoxy, amino, C₁₋₄-alkylamino or di-(C₁₋₄-alkyl)-amino group or by a 4- to 7-membered alkyleneimino group, whilst in the abovementioned 6- to 7-membered alkyleneimino groups in each case a methylene group in the 4 position may be replaced by an oxygen or sulphur atom or by a sulphinyl, sulphonyl, imino or N-(C₁₋₄-alkyl)-imino group,

a C₄₋₇-cycloalkyl group optionally substituted by 1 or 2 methyl groups,

a C₃₋₅-alkenyl or C₃₋₅-alkynyl group, wherein the unsaturated part may not be linked to the oxygen atom,

a C₃₋₇-cycloalkyl-C₁₋₄-alkyl, aryl, aryl-C₁₋₄-alkyl or R_gCO-O-(R_eCR_f)-group, whilst

R_e and R_f, which may be identical or different, in each case denote a hydrogen atom or a C₁₋₄-alkyl group and

R_g denotes a C₁₋₄-alkyl, C₃₋₇-cycloalkyl, C₁₋₄-alkoxy or C₅₋₇-cycloalkoxy group,

and R₉ denotes a C₁₋₄-alkyl, aryl or aryl-C₁₋₄-alkyl group,

a 4- to 7-membered alkyleneimino group which is substituted by an R_6O-CO , $(R_7O-PO-OR_8)$, $(R_7O-PO-R_9)$, $R_6O-CO-C_{1-4}$ -alkyl, bis- $(R_6O-CO)-C_{1-4}$ -alkyl, $(R_7O-PO-OR_8)-C_{1-4}$ -alkyl or $(R_7O-PO-R_9)-C_{1-4}$ -alkyl group wherein R_6 to R_9 are defined as in claim 5 as set forth previously in this claim,

a 4- to 7-membered alkyleneimino group which is substituted by two R_6O-CO or $R_6O-CO-C_{1-4}$ -alkyl groups or by an R_6O-CO -group and an $R_6O-CO-C_{1-4}$ -alkyl group wherein R_6 is defined as in claim 5 as set forth previously in this claim,

a piperazino or homopiperazino group which is substituted in the 4 position by the group R_{10} and is additionally substituted at a cyclic carbon atom by an R_6O-CO , $(R_7O-PO-OR_8)$, $(R_7O-PO-R_9)$, $R_6O-CO-C_{1-4}$ -alkyl, bis- $(R_6O-CO)-C_{1-4}$ -alkyl, $(R_7O-PO-OR_8)-C_{1-4}$ -alkyl or $(R_7O-PO-R_9)-C_{1-4}$ -alkyl group wherein R_6 to R_{10} are defined as in claim 5 as set forth previously in this claim,

C1
a piperazino or homopiperazino group which is substituted in the 4 position by the group R_{10} and is additionally substituted at cyclic carbon atoms by two R_6O-CO or $R_6O-CO-C_{1-4}$ -alkyl groups or by an R_6O-CO group and an $R_6O-CO-C_{1-4}$ -alkyl group wherein R_6 and R_{10} are defined as in claim 5 as set forth previously in this claim,

a piperazino or homopiperazino group which is substituted in each case in the 4 position by an $R_6O-CO-C_{1-4}$ -alkyl, bis- $(R_6O-CO)-C_{1-4}$ -alkyl, $(R_7O-PO-OR_8)-C_{1-4}$ -alkyl or $(R_7O-PO-R_9)-C_{1-4}$ -alkyl group wherein R_6 to R_9 are defined as in claim 5 as set forth previously in this claim,

a piperazino or homopiperazino group which is substituted in the 4 position by an $R_6O-CO-C_{1-4}$ -alkyl, bis- $(R_6O-CO)-C_{1-4}$ -alkyl, $(R_7O-PO-OR_8)-C_{1-4}$ -alkyl or $(R_7O-PO-R_9)-C_{1-4}$ -alkyl group and is additionally substituted at cyclic carbon atoms by one or two R_6O-CO or $R_6O-CO-C_{1-4}$ -alkyl groups or by an R_6O-CO -group and an $R_6O-CO-C_{1-4}$ -alkyl group wherein R_6 to R_9 are defined as in claim 5 as set forth previously in this claim,

a morpholino or homomorpholino group which is substituted in each case by an R_6O-CO , $(R_7O-PO-OR_8)$, $(R_7O-PO-R_9)$, $R_6O-CO-C_{1-4}$ -alkyl, bis- $(R_6O-CO)-C_{1-4}$ -alkyl, $(R_7O-PO-OR_8)-C_{1-4}$ -alkyl or $(R_7O-PO-R_9)-C_{1-4}$ -alkyl group wherein R_6 to R_9 are defined as in claim 5 as set forth previously in this claim,

C₁₋₄-alkyl or (R₆O-PO-R₉)-C₁₋₄-alkyl group wherein R₆ to R₉ are defined as in claim 5 as set forth previously in this claim,

a morpholino or homomorpholino group which is substituted by two R₆O-CO or R₆O-CO-C₁₋₄-alkyl groups or by an R₆O-CO-group and an R₆O-CO-C₁₋₄-alkyl group wherein R₆ is defined as in claim 5 set forth previously in this claim,

a pyrrolidinyl, piperidinyl or hexahydroazepinyl group substituted in the 1 position by the group R₁₀, whilst the abovementioned 5- to 7-membered rings are in each case additionally substituted at a carbon atom by an R₆O-CO, (R₇O-PO-OR₈), (R₇O-PO-R₉), R₆O-CO-C₁₋₄-alkyl, bis-(R₆O-CO)-C₁₋₄-alkyl, (R₇O-PO-OR₈)-C₁₋₄-alkyl or (R₇O-PO-R₉)-C₁₋₄-alkyl group wherein R₆ to R₁₀ are defined as in claim 5 set forth previously in this claim,

C 1
a pyrrolidinyl, piperidinyl or hexahydroazepinyl group substituted in the 1 position by the group R₁₀, while the abovementioned 5- to 7-membered rings are in each case additionally substituted at carbon atoms by two R₆O-CO or R₆O-CO-C₁₋₄-alkyl groups or by an R₆O-CO-group and an R₆O-CO-C₁₋₄-alkyl group wherein R₆ and R₁₀ are defined as in claim 5 set forth previously in this claim,

a pyrrolidinyl, piperidinyl or hexahydroazepinyl group substituted in the 1 position by an R₆O-CO-C₁₋₄-alkyl, bis-(R₆O-CO)-C₁₋₄-alkyl, (R₇O-PO-OR₈)-C₁₋₄-alkyl or (R₇O-PO-R₉)-C₁₋₄-alkyl group wherein R₆ to R₉ are defined as in claim 5 set forth previously in this claim,

a pyrrolidinyl, piperidinyl or hexahydroazepinyl group substituted in the 1 position by an R₆O-CO-C₁₋₄-alkyl, bis-(R₆O-CO)-C₁₋₄-alkyl, (R₇O-PO-OR₈)-C₁₋₄-alkyl or (R₇O-PO-R₉)-C₁₋₄-alkyl group, while the abovementioned 5- to 7-membered rings are in each case additionally substituted at carbon atoms by one or two R₆O-CO or R₆O-CO-C₁₋₄-alkyl groups or by an R₆O-CO-group and an R₆O-CO-C₁₋₄-alkyl group wherein R₆ to R₉ are defined as in claim 5 set forth previously in this claim,

a 2-oxo-morpholino group which may be substituted by 1 or 2 methyl groups,

a 2-oxo-morpholinyl group which is substituted in the 4 position by a hydrogen atom, by a C₁₋₄-alkyl, R₆O-CO-C₁₋₄-alkyl, (R₇O-PO-OR₈)-C₁₋₄-alkyl or (R₇O-PO-R₉)-C₁₋₄-alkyl group,

while R_6 to R_9 are defined as in claim 1 and the abovementioned 2-oxo-morpholinyl groups are in each case linked to a carbon atom of the group F,

a morpholino or thiomorpholino group which is substituted in the 2 position by a C_{1-4} -alkoxy group,

a morpholino or thiomorpholino group which is substituted in the 2 and 6 position by a C_{1-4} -alkoxy group,

a C_{1-4} -alkyl- NR_5 -group wherein the C_{1-4} -alkyl moiety, which is straight-chained and may additionally be substituted by one or two methyl groups, is in each case terminally substituted by a di- $(C_{1-4}$ -alkoxy)-methyl or tri- $(C_{1-4}$ -alkoxy)-methyl group, whilst R_5 is defined as in claim 5 set forth previously in this claim,

a C_{1-4} -alkyl- NR_5 -group wherein the C_{1-4} -alkyl moiety, which is straight-chained and may additionally be substituted by one or two methyl groups, is terminally substituted in each case by a 1,3-dioxolan-2-yl or 1,3-dioxan-2-yl-group optionally substituted by one or two methyl groups, while R_5 is defined as in claim 5 set forth previously in this claim,

an R_hNR_5 -group wherein R_5 is as hereinbefore defined and R_h denotes a 2-oxo-tetrahydrofuran-3-yl, 2-oxo-tetrahydrofuran-4-yl, 2-oxo-tetrahydropyran-3-yl, 2-oxo-tetrahydropyran-4-yl or 2-oxo-tetrahydropyran-5-yl group optionally substituted by one or two methyl groups,

whilst by the aryl moieties mentioned in the definitions of the abovementioned groups is meant a phenyl group which in each case may be monosubstituted by R_{12} , mono-, di- or trisubstituted by R_{13} or monosubstituted by R_{12} and additionally mono- or disubstituted by R_{13} , whilst the substituents may be identical or different and

R_{12} denotes a cyano, carboxy, C_{1-4} -alkoxycarbonyl, aminocarbonyl, C_{1-4} -alkylaminocarbonyl, di- $(C_{1-4}$ -alkyl)-aminocarbonyl, C_{1-4} -alkylsulphenyl, C_{1-4} -alkylsulphanyl, C_{1-4} -alkylsulphonyl, hydroxy, C_{1-4} -alkylsulphonyloxy, trifluoromethyloxy, nitro, amino, C_{1-4} -alkylamino, di- $(C_{1-4}$ -alkyl)-amino, C_{1-4} -alkyl-carbonylamino, N - $(C_{1-4}$ -alkyl)- C_{1-4} -alkylcarbonylamino, C_{1-4} -alkylsulphonylamino,

N-(C₁₋₄-alkyl)-C₁₋₄-alkylsulphonylamino, aminosulphonyl, C₁₋₄-alkylaminosulphonyl or di-(C₁₋₄-alkyl)-aminosulphonyl group or a carbonyl group, which is substituted by a 5- to 7-membered alkyleneimino group, wherein in the abovementioned 6- to 7-membered alkyleneimino groups in each case a methylene group in the 4 position may be replaced by an oxygen or sulphur atom, by a sulphinyl, sulphonyl, imino or N-(C₁₋₄-alkyl)-imino group, and

R₁₃ denotes a fluorine, chlorine, bromine or iodine atom, a C₁₋₄-alkyl, trifluoromethyl or C₁₋₄-alkoxy group or

two groups R₁₃, if they are bound to adjacent carbon atoms, together denote a C₃₋₅-alkylene, methylenedioxy or 1,3-butadien-1,4-ylene group,

and moreover, the heteroaryl groups mentioned in the definitions of the abovementioned groups also include a 5-membered heteroaromatic group which contains an imino group, an oxygen or sulphur atom or an imino group, an oxygen or sulphur atom and one or two nitrogen atoms, or

a 6-membered heteroaromatic group which contains one, two or three nitrogen atoms,

whilst the abovementioned 5-membered heteroaromatic groups may be substituted in each case by 1 or 2 methyl or ethyl groups and the abovementioned 6-membered heteroaromatic groups may be substituted in each case by 1 or 2 methyl or ethyl groups or by a fluorine, chlorine, bromine or iodine atom, or by a trifluoromethyl, hydroxy, methoxy or ethoxy group,

or a tautomer or salt thereof.

Claim 13 (currently amended): A compound of the formula I according to claim 12, wherein

R_a denotes a hydrogen atom,

R_b denotes a phenyl, benzyl or 1-phenylethyl group wherein the phenyl nucleus is substituted in each case by the groups R_1 to R_3 , while

R_1 and R_2 , which may be identical or different, each denote a hydrogen, fluorine, chlorine, bromine or iodine atom,

a methyl, ethyl, hydroxy, methoxy, ethoxy, amino, cyano, vinyl or ethynyl group,

an aryl, aryloxy, arylmethyl or arylmethoxy group,

a methyl or methoxy group substituted by 1 to 3 fluorine atoms or

R_1 together with R_2 , if they are bound to adjacent carbon atoms, denote a $-CH=CH-CH=CH$, $-CH=CH-NH$ or $-CH=N-NH$ group and

R_3 denotes a hydrogen, fluorine, chlorine or bromine atom,

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R_c and R_d in each case denote a hydrogen atom,

X denotes a methine group substituted by a cyano group or a nitrogen atom,

A denotes an $-NH-$ group optionally substituted by a methyl or ethyl group,

B denotes a carbonyl group,

C denotes a 1,1- or 1,2-vinylene group which is substituted in each case by one or two methyl groups or may be substituted by a trifluoromethyl group,

an ethynylene group or

a 1,3-butadien-1,4-ylene group optionally substituted by a methyl or trifluoromethyl group,

D together with E denotes a hydrogen atom,

a methyl, trifluoromethyl or aryl group,

F denotes an $-O-C_{1-4}$ -alkylene group, wherein the alkylene moiety is linked to the group G, or an oxygen atom, while this may not be linked to a nitrogen atom of the group G, and

G denotes an R_6O-CO -alkylene- NR_5 , $(R_7O-PO-OR_8)$ -alkylene- NR_5 or $(R_7O-PO-R_9)$ -alkylene- NR_5 group wherein in each case the alkylene moiety, which is straight-chained and contains 1 to 4 carbon atoms, may additionally be substituted by one or two C_{1-2} -alkyl groups or by an R_6O-CO or $R_6O-CO-C_{1-2}$ -alkyl group, while R_5 to R_9 are defined as in claim §12,

a 4- to 7-membered alkyleneimino group which is substituted by an R_6O-CO , $R_6O-CO-C_{1-4}$ -alkyl or bis-(R_6O-CO)- C_{1-4} -alkyl group wherein R_6 is defined as in claim §12,

a 4- to 7-membered alkyleneimino group which is substituted by two R_6O-CO or $R_6O-CO-C_{1-4}$ -alkyl groups wherein R_6 is defined as in claim §12,

C a piperazino or homopiperazino group which is substituted in the 4 position by the group R_{10} and is additionally substituted at a cyclic carbon atom by an R_6O-CO , $R_6O-CO-C_{1-4}$ -alkyl or bis-(R_6O-CO)- C_{1-4} -alkyl group wherein R_6 and R_{10} are defined as in claim §12,

a piperazino or homopiperazino group which is substituted in the 4 position by the group R_{10} and is additionally substituted at cyclic carbon atoms by two R_6O-CO or $R_6O-CO-C_{1-4}$ -alkyl groups wherein R_6 and R_{10} are defined as in claim §12,

a piperazino or homopiperazino group which is substituted in each case in the 4 position by an $R_6O-CO-C_{1-4}$ -alkyl, bis-(R_6O-CO)- C_{1-4} -alkyl, $(R_7O-PO-OR_8)$ - C_{1-4} -alkyl or $(R_7O-PO-R_9)$ - C_{1-4} -alkyl group wherein R_6 to R_9 are defined as in claim §12,

a piperazino or homopiperazino group which is substituted in the 4 position by an $R_6O-CO-C_{1-4}$ -alkyl or bis-(R_6O-CO)- C_{1-4} -alkyl group and additionally at cyclic carbon atoms by one or two R_6O-CO or $R_6O-CO-C_{1-4}$ -alkyl groups wherein R_6 is defined as in claim §12,

a morpholino or homomorpholino group which is substituted in each case by an R_6O-CO , $R_6O-CO-C_{1-4}$ -alkyl or bis-(R_6O-CO)- C_{1-4} -alkyl group wherein R_6 is defined as in claim §12,

a morpholino or homomorpholino group which is substituted by two R_6O-CO or $R_6O-CO-C_{1-4}-alkyl$ groups wherein R_6 is defined as in claim §12,

a pyrrolidinyl, piperidinyl or hexahydroazepinyl group substituted in the 1 position by the group R_{10} , while the abovementioned 5- to 7-membered rings in each case are additionally substituted at a carbon atom by an R_6O-CO , $R_6O-CO-C_{1-4}-alkyl$ or bis-($R_6O-CO-C_{1-4}-alkyl$) group wherein R_6 and R_{10} are defined as in claim §12,

a pyrrolidinyl, piperidinyl or hexahydroazepinyl group substituted in the 1 position by the group R_{10} , while the abovementioned 5- to 7-membered rings in each case are additionally substituted at carbon atoms by two R_6O-CO or $R_6O-CO-C_{1-4}-alkyl$ groups wherein R_6 and R_{10} are defined as in claim §12,

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a pyrrolidinyl, piperidinyl or hexahydroazepinyl group substituted in the 1 position by an $R_6O-CO-C_{1-4}-alkyl$, bis-($R_6O-CO-C_{1-4}-alkyl$), $(R_7O-PO-OR_8)-C_{1-4}-alkyl$ or $(R_7O-PO-R_9)-C_{1-4}-alkyl$ group wherein R_6 to R_9 are defined as in claim §12,

a pyrrolidinyl, piperidinyl or hexahydroazepinyl group substituted in the 1 position by an $R_6O-CO-C_{1-4}-alkyl$ or bis-($R_6O-CO-C_{1-4}-alkyl$) group, while the abovementioned 5- to 7-membered rings in each case are additionally substituted at carbon atoms by one or two R_6O-CO or $R_6O-CO-C_{1-4}-alkyl$ groups wherein R_6 is defined as in claim §12,

a 2-oxo-morpholino group which may be substituted by 1 or 2 methyl groups,

a 2-oxo-morpholinyl group which is substituted in the 4 position by a $C_{1-4}-alkyl$ or $R_6O-CO-C_{1-4}-alkyl$ group, while R_6 is defined as in claim 2 and the abovementioned 2-oxo-morpholinyl groups are each linked to a carbon atom of the group F,

a morpholino group which is substituted in the 2 position by a $C_{1-4}-alkoxy$ group,

a morpholino group which is substituted in the 2 and 6 positions in each case by a $C_{1-4}-alkoxy$ group,

a C_{1-4} -alkyl- NR_5 group wherein the C_{1-4} -alkyl moiety, which is straight-chained, is terminally substituted by a di- $(C_{1-4}$ -alkoxy)-methyl group, while R_5 is defined as in claim §12,

a C_{1-4} -alkyl- NR_5 group wherein the C_{1-4} -alkyl moiety, which is straight-chained, is terminally substituted by a 1,3-dioxolan-2-yl or 1,3-dioxan-2-yl group, while R_5 is defined as in claim §12,

a R_hNR_5 group wherein R_5 is defined as in claim 2 and R_h denotes a substituted 2-oxo-tetrahydrofuran-3-yl, 2-oxo-tetrahydrofuran-4-yl, 2-oxo-tetrahydropyran-3-yl, 2-oxo-tetrahydropyran-4-yl or 2-oxo-tetrahydropyran-5-yl group optionally by one or two methyl groups,

while the aryl moieties mentioned in the definition of the abovementioned groups denote a phenyl group which may in each case be monosubstituted by R_{12} , mono- or disubstituted by R_{13} or monosubstituted by R_{12} and additionally mono or disubstituted by R_{13} , while the substituents may be identical or different and

R_{12} denotes a cyano, C_{1-2} -alkoxycarbonyl, aminocarbonyl, C_{1-2} -alkylaminocarbonyl, di- $(C_{1-2}$ -alkyl)-aminocarbonyl, C_{1-2} -alkylsulphenyl, C_{1-2} -alkylsulphinyll, C_{1-2} -alkylsulphonyl, hydroxy, nitro, amino, C_{1-2} -alkylamino or di- $(C_{1-2}$ -alkyl)-amino group and

R_{13} denotes a fluorine, chlorine, bromine or iodine atom, a C_{1-2} -alkyl, trifluoromethyl or C_{1-2} -alkoxy group or

two groups R_{13} , if they are bound to adjacent carbon atoms, together denote a C_{3-5} -alkylene, methylenedioxy or 1,3-butadien-1,4-ylene group,

or a tautomer or salt thereof.

Claim 14 (currently amended): A compound of the formula I according to claim 12, wherein

R_a denotes a hydrogen atom,

R_b denotes a phenyl, benzyl or 1-phenylethyl group wherein the phenyl nucleus is substituted in each case by the groups R_1 to R_3 , while

R_1 and R_2 , which may be identical or different, each denote a hydrogen, fluorine, chlorine or bromine atom, or a methyl, trifluoromethyl, methoxy, ethynyl or cyano group,

R_3 denotes a hydrogen atom,

R_c and R_d in each case denote a hydrogen atom,

X denotes a methine group substituted by a cyano group, or a nitrogen atom,

C | A denotes an $-NH-$ group,

B denotes a carbonyl group,

C denotes a 1,1- or 1,2-vinylene group,

an ethynylene group or

a 1,3-butadien-1,4-ylene group,

D together with E denotes a hydrogen atom,

a methyl, trifluoromethyl or aryl group,

F denotes an $-O-C_{1-4}$ -alkylene group, wherein the alkylene moiety is linked to the group G , or an oxygen atom, while this may not be linked to a nitrogen atom of the group G , and

G denotes an R_6O-CO -alkylene- NR_5 group wherein the alkylene moiety, which is straight-chained and contains 1 to 4 carbon atoms, may additionally be substituted by one or two

C_{1-2} -alkyl groups or by an R_6O-CO or $R_6O-CO-C_{1-2}$ -alkyl group, while R_5 and R_6 are defined as in claim §12,

a pyrrolidino or piperidino group which is substituted by an R_6O-CO or $R_6O-CO-C_{1-2}$ -alkyl group wherein R_6 is defined as in claim §12,

a pyrrolidino or piperidino group which is substituted by two R_6O-CO or $R_6O-CO-C_{1-2}$ -alkyl groups wherein R_6 is defined as in claim §12,

a piperazino group which is substituted in the 4 position by the group R_{10} and additionally at a cyclic carbon atom by an R_6O-CO , or $R_6O-CO-C_{1-2}$ -alkyl group, while R_6 and R_{10} are defined as in claim §12,

a piperazino group which is substituted in the 4 position by an $R_6O-CO-C_{1-4}$ -alkyl, bis-(R_6O-CO)- C_{1-4} -alkyl or ($R_7O-PO-OR_8$)- C_{1-2} -alkyl group wherein R_6 to R_8 are defined as in claim §12,

a piperazino group which is substituted in the 4 position by an $R_6O-CO-C_{1-2}$ -alkyl group and additionally at a cyclic carbon atom by an R_6O-CO or $R_6O-CO-C_{1-2}$ -alkyl group wherein R_6 is defined as in claim §12,

a morpholino group which is substituted by an R_6O-CO or $R_6O-CO-C_{1-2}$ -alkyl group, while R_6 is defined as in claim §12,

a piperidinyl group substituted in the 1 position by an $R_6O-CO-C_{1-4}$ -alkyl, bis-(R_6O-CO)- C_{1-4} -alkyl or ($R_7O-PO-OR_8$)- C_{1-2} -alkyl group wherein R_6 to R_8 are defined as in claim §12,

a 2-oxo-morpholino group which may be substituted by 1 or 2 methyl groups,

a 2-oxo-morpholinyl group which is substituted in the 4 position by a methyl, ethyl or $R_6O-CO-C_{1-2}$ -alkyl group, while R_6 is defined as in claim 3 and the abovementioned 2-oxo-morpholinyl groups in each case are linked to a carbon atom of the group F,

a morpholino group which is substituted in the 2 position by a methoxy or ethoxy group,

a morpholino group which is substituted in the 2 and 6 positions in each case by a methoxy or ethoxy group,

a 2,2-dimethoxyethyl-NR₅, 2,2-diethoxyethyl-NR₅, 1,3-dioxolan-2-yl-methyl-NR₅ or 1,3-dioxan-2-yl-methyl-NR₅ group wherein R₅ is defined as in claim 512,

while the aryl moieties mentioned in the definition of the abovementioned groups denote a phenyl group which may be mono- or disubstituted by R₁₃, while the substituents may be identical or different and

R₁₃ denotes a fluorine, chlorine, bromine or iodine atom, a C₁₋₂-alkyl, trifluoromethyl or C₁₋₂-alkoxy group or

two groups R₁₃, if they are bound to adjacent carbon atoms, together denote a C₃₋₄-alkylene, methylenedioxy or 1,3-butadien-1,4-ylene group,

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or a tautomer or salt thereof.

Claim 15 (currently amended): A compound of the formula I according to claim 12, wherein

R_a denotes a hydrogen atom,

R_b denotes a phenyl, benzyl or 1-phenylethyl group wherein the phenyl nucleus is substituted in each case by the groups R₁ to R₃, wherein

R₁ and R₂, which may be identical or different, each denote a hydrogen, fluorine, chlorine or bromine atom or a methyl group and

R₃ denotes a hydrogen atom,

R_c and R_d each denote a hydrogen atom,

X denotes a methine group substituted by a cyano group, or a nitrogen atom,

A denotes an -NH- group,

B denotes a carbonyl group,

C denotes a 1,2-vinylene or an ethynylene group,

D together with E denotes a hydrogen atom or a methyl group,

F denotes an -O-C₁₋₄-alkylene group, while the alkylene moiety is linked to the group G, or an oxygen atom, which may not be linked to a nitrogen atom of the group G, and

G denotes an R₆O-CO-alkylene-NR₅ group wherein the alkylene moiety, which is straight-chained and contains 1 or 2 carbon atoms, may additionally be substituted by a methyl group or by an R₆O-CO or R₆O-CO-methyl group, while R₅ and R₆ are defined as in claim 512,

a pyrrolidino or piperidino group which is substituted by an R₆O-CO or R₆O-CO-methyl group wherein R₆ is defined as in claim 512,

a pyrrolidino or piperidino group which is substituted by two R₆O-CO or R₆O-CO-methyl groups wherein R₆ is defined as in claim 512,

a piperazino group which is substituted in the 4 position by an R₆O-CO-C₁₋₄-alkyl, bis-(R₆O-CO)-C₁₋₄-alkyl or (R₇O-PO-OR₈)-C₁₋₂-alkyl group wherein R₆ to R₈ are defined as in claim 512,

a piperidinyl group substituted in the 1 position by an R₆O-CO-C₁₋₂-alkyl group wherein R₆ is defined as in claim 512,

or a tautomer or salt thereof.

Claim 16 (previously presented): A compound of the formula I according to claim 15, wherein R_b denotes a 1-phenylethyl group wherein the phenyl nucleus is substituted in each case by the groups R₁ to R₃, wherein

R₁ and R₂, which may be identical or different, each denote a hydrogen, fluorine, chlorine or bromine atom or a methyl group and

R₃ denotes a hydrogen atom,

or a tautomer or salt thereof.

Claim 17 (previously presented): A compound selected from the group consisting of:

- (a) 4-[(3-bromophenyl)amino]-7-(3-{4-[(ethoxycarbonyl)methyl]-piperazin-1-yl}propyloxy)-6-[(vinylcarbonyl)amino]-quinazoline,
- (b) 4-[(3-bromophenyl)amino]-7-(3-{4-[3-(ethoxycarbonyl)propyl]-piperazin-1-yl}propyloxy)-6-[(vinylcarbonyl)amino]-quinazoline,
- (c) 4-[(3-bromophenyl)amino]-7-(1-[(ethoxycarbonyl)methyl]-piperidin-4-yl)oxy)-6-[(vinylcarbonyl)amino]-quinazoline,
- (d) 4-[(3-bromophenyl)amino]-7-(3-{4-[(diethoxyphosphoryl)methyl]-piperazin-1-yl}propyloxy)-6-[(vinylcarbonyl)amino]-quinazoline,
- (e) 4-[(3-bromophenyl)amino]-7-(3-{N-[(ethoxycarbonyl)methyl]-N-methylamino}propyloxy)-6-[(vinylcarbonyl)amino]-quinazoline,
- (f) 4-[(3-bromophenyl)amino]-6-[(4-{N-[(ethoxycarbonyl)methyl]-N-methylamino}-1-oxo-2-buten-1-yl)amino]-quinazoline,
- (g) 4-[(3-bromophenyl)amino]-6-[(4-{N-[(diethoxyphosphoryl)methyl]-N-methylamino}-1-oxo-2-buten-1-yl)amino]-7-methoxy-quinazoline,

(h) *(R)*-4-[(1-phenylethyl)amino]-6-[(4-*{*N-[(ethoxycarbonyl)methyl]-N-methylamino*}*-1-oxo-2-buten-1-yl)amino]-7-methoxy-quinazoline,

(i) 4-[(3-bromophenyl)amino]-6-[(4-[N-(2,2-dimethoxyethyl)-N-methylamino]-1-oxo-2-buten-1-yl)amino]-7-methoxy-quinazoline,

(j) 4-[(3-bromophenyl)amino]-6-[(4-(2-ethoxy-morpholin-4-yl)-1-oxo-2-buten-1-yl)amino]-7-methoxy-quinazoline,

(k) 4-[(3-bromophenyl)amino]-3-cyano-6-[(4-*{*N-[(ethoxycarbonyl)methyl]-N-methylamino*}*-1-oxo-2-buten-1-yl)amino]-quinoline,

(l) 4-[(3-chloro-4-fluorophenyl)amino]-6-[(4-*{*4-[(ethoxycarbonyl)methyl]-piperazin-1-yl*}*-1-oxo-2-buten-1-yl)amino]-7-cyclopropylmethoxy-quinazoline,

(m) 4-[(3-chloro-4-fluorophenyl)amino]-6-[(4-*{*N-[2-(ethoxycarbonyl)-ethyl]-N-[(ethoxycarbonyl)methyl]amino*}*-1-oxo-2-buten-1-yl)amino]-7-cyclopropylmethoxy-quinazoline,

(n) 4-[(3-chloro-4-fluorophenyl)amino]-6-[(4-(2-oxo-morpholin-4-yl)-1-oxo-2-buten-1-yl)amino]-7-cyclopropylmethoxy-quinazoline,

(o) 4-[(3-chloro-4-fluorophenyl)amino]-6-[(4-*{*4-[(ethoxycarbonyl)methyl]-piperazin-1-yl*}*-1-oxo-2-buten-1-yl)amino]-7-cyclobutyloxy-quinazoline,

(p) 4-[(3-chloro-4-fluorophenyl)amino]-6-[(4-*{*4-[(ethoxycarbonyl)methyl]-piperazin-1-yl*}*-1-oxo-2-buten-1-yl)amino]-7-(2-cyclopropylethoxy)-quinazoline,

(q) *(S)*-4-[(3-chloro-4-fluorophenyl)amino]-6-[(4-[2-(methoxycarbonyl)-pyrrolidin-1-yl]-1-oxo-2-buten-1-yl)amino]-7-cyclopropylmethoxy-quinazoline,

(r) 4-[(3-chloro-4-fluorophenyl)amino]-6-[(4-{N-[(ethoxycarbonyl)methyl]-N-[2-(acetylsulphonyl)ethyl]amino}-1-oxo-2-buten-1-yl)amino]-7-cyclopropylmethoxy-quinazoline, and

(s) 4-[(3-chloro-4-fluorophenyl)amino]-6-[(4-{N-[(ethoxycarbonyl)-methyl]-N-[2-(methylcarbonyloxy)ethyl]amino}-1-oxo-2-buten-1-yl)amino]-7-cyclopropylmethoxy-quinazoline,
or a salt thereof.

Claim 18 (previously presented): A physiologically acceptable salt of a compound according to claim 5.

Claim 19 (previously presented): A pharmaceutical composition comprising a compound according to claim 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 or 17 or a physiologically acceptable salt thereof and a pharmaceutically acceptable carrier or diluent.

Claim 20 (previously presented): A method for treating a benign or malignant tumour, a disease of the airways or lungs, polyps, a disease of the gastrointestinal tract, the bile duct or the gall bladder, kidneys or skin, which method comprises administering a therapeutically effective amount of a compound according to claim 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 or 17 or a physiologically acceptable salt thereof.